22% NIEUPORT 28 ARF
RADIO CONTROL WWI MODEL AIRPLANE
INSTRUCTION MANUAL

Shown with optional Nieuport 28 scale machine guns, motor and propeller.

Congratulations on your acquisition of Maxford USA's Nieuport 28 ARF!

The Nieuport 28 was a French biplane fighter flown during World War I, designed by Gustave Delage and built by Nieuport, also known as Nieuport-Delage ï a French airplane company famous for racers before World War I and fighter aircraft during World War I and between the wars.

Retaining many of the Nieuport 17ôs best features, the Nieuport 28 was a lightly built, highly maneuverable fighter: It had a more powerful engine; carried twin synchronized machine guns; its ailerons were fitted only to the lower wing; and it had two-spar wings ï top and bottom ï in place of the earlier Nieuport typesô sesquiplane (a biplane with one long wing and one short one above or below it).

The Nieuport 28 was the first aircraft to see service in any American fighter squadron. By the time the Nieuport 28 became available in early 1918, it was already considered ñsurplusò from the French point of view. Their SPAD S.XIII was a superior aircraft in most respects and had already become firmly established as the standard French fighter. (A 1/5-scale ARF SPAD XIII is also available from Maxford USA at www.maxfordusa.com.)

When the Nieuport 28 was offered to the United States, it was immediately accepted by the American Expeditionary Force, and 297 Nieuport 28s were put into service in the 27th, 94th, 95th and 103rd Aero Pursuit Squadrons.

Several well-known WWI American pilots, including 26-victory American ace Captain Eddie Rickenbacker and Lieutenant Quentin Roosevelt ï the youngest son of former President Theodore Roosevelt ï flew Nieuport 28s.

Sadly, on July 14, 1918, just 4 months before his 21st birthday, Lieutenant Rooseveltôs Nieuport 28 was downed behind enemy lines, felled by two machine gun bullets which struck him in the head. His body was buried at the crash site by the Germans. Twenty-six years later, following the World War II D-Day invasion of France, Quentin's brother, Brig. Gen. Theodore Roosevelt, Jr. died of a heart attack on July 12, 1944 and was buried at the Omaha Beach War Memorial. Quentinôs remains were then reinterred beside his elder brother.

This model of the Nieuport 28 is a new design and lots better than the previous 68-inch V1.0 or 1.1 products. It is constructed mainly of laser-cut balsa and light ply and is finished with a Mylar film covering patterned after the "Hat in the Ring" aircraft flown by the 94th Aero Squadronôs ace, Eddie Rickenbacker. (A 40-inch EP version is also available at www.maxfordusa.com.)

We invite you to enjoy the pride of ownership and the joy of flying your high-quality balsa and light-ply almost-ready-to-fly version of this historic aircraft.

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I. SAFETY PRECAUTIONS & ASSEMBLY TIPS:
(*IMPORTANT – READ THIS SECTION BEFORE YOU BEGIN ASSEMBLY*)

1. This product should not be considered a toy, but rather a sophisticated, working model that functions much like a full-scale airplane. Because of its performance capabilities, this product, if not assembled and operated correctly, could cause injury to you or spectators and damage to property. Maxford USA provides you with a high-quality, thoroughly tested model airplane kit with assembly instructions. However, the quality and capabilities of your finished model airplane depend on how you assemble it, and your safety depends on how you use and fly it. Any testing or flying of this model airplane is done entirely at your own risk.
2. Assemble this model airplane according to these instructions. Do not alter or modify the model beyond the assembly and power system options covered in these instructions, as doing so may result in an unsafe or unworkable model. In a few cases the instructions may differ slightly from the photos; in those instances the written instructions should be considered as correct. If you have a question or concern about these instructions, before you proceed with assembly of this product, contact your dealer or speak to a Maxford USA customer service representative at 562-529-3988 (Monday through Friday, except national holidays, 9 AM to 5 PM Pacific time).
3. While this kit has been flight-tested to meet or exceed our rigid performance and reliability standards in normal use, if you elect to perform any extremely high-stress flying, such as racing or advanced aerobatics, or if you install a larger power system than specified, you (the buyer or user of this product) are solely responsible for taking any and all necessary steps to reinforce the high-stress points and/or substitute hardware that is more suitable for such increased stresses.
4. Throughout the lifetime of this model, use only the Maxford USA-recommended or same-sized motor and a new or well-maintained radio control system and batteries recommended by the maker of your motor and radio system.
5. It is your responsibility to install the R/C system and other components in such a way that this model airplane passes all applicable safety/range tests and that the power system and controls operate correctly and smoothly.
6. Recheck the operation of this model airplane before every flight to ensure that all equipment is still operating correctly and that the model has remained structurally sound. Also before every flight, check all electrical and/or structural connections; do not fly without replacing any that you find damaged or worn.
7. Before you begin assembly of this model airplane, read all instructions and test-fit each part to ensure you fully understand the instructions and that no parts are missing, damaged or unsatisfactory. (Note: Temperature and/or humidity differences and changes between the factory, our warehouse and your home may dictate the need for slight adjustment to the wing and/or the horizontal stabilizer to ensure the wing is parallel to the horizontal stabilizer; however, we recommend you contact us before you attempt any such adjustment.)
8. If you are not an experienced R/C pilot or have not assembled and flown this type of model before, we strongly urge you to get assistance from an experienced R/C pilot.
9. To help ensure the security of servo connections, we recommend you install optional Maxford USA servo extension safety clips wherever you connect servo-leads to a servo extender or Y-cable.

10. After you have determined each servo-mounting-screwôs location, apply thin CA adhesive to harden the wood where the servoôs mounting screws will be inserted.
11. Use the tip of a hot soldering iron to burn and remove any Mylar covering material to obtain good wood-to-wood gluing surfaces at the horizontal and vertical stabilizers.
12. If Mylar hides a CA hingeôs slot, find and open the slot by pressing with a fingernail or sharp hobby knife.
13. We recommend 30-minute epoxy for permanent attachment of critical parts such as where the horizontal and vertical stabilizers attach to the fuselage.
14. If you have concern about the security of any factory fabrication procedure(s), we recommend you apply 30-minute epoxy around the perimeter of such part(s) as an extra safety precaution.
15. String may be supplied to pull your servoôs lead and servo extension through the wing to your radio receiver; however, you may find it easier to use masking tape to temporarily attach the connector to the end of a length of coat-hanger wire, then use the coat hanger wire to PUSH the lead and its connector through the airframe.

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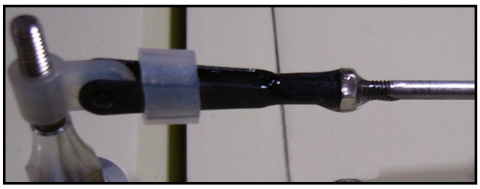
16. We recommend use of a thread-locking compound to secure all hardware from vibration. Also, once the included clevises are adjusted, we suggest you coat each clevis and rod with epoxy to securely and safely affix each clevis to its rod. As a safety precaution, always check each clevis before and after each flight.



17. This model includes some fiberglass or carbon-fiber reinforced parts. If you drill, grind or sand a fiberglass or carbon-fiber reinforced part, always wear safety goggles, a particle mask and rubber gloves to guard yourself from eye, skin and respiratory-tract irritation; never blow into the part to remove fiberglass or carbon fiber dust (the dust may blow back into your face).
18. Check the Mylar covering materialôs joints and surfaces; if necessary, carefully use an iron (do NOT set the ironôs temperature too high) to secure the edges and to tighten any loosened areas. Recheck and retighten from time to time.

II. WARRANTY, LIABILITY WAIVER, AND RETURN POLICY

Maxford USA guarantees this kit to be free from defects in material and workmanship at the time of purchase. All of our products have been inspected in our factory and are checked again when shipped from our warehouse.

However, Maxford USA cannot directly control the materials you may use nor your final-assembly process. Therefore, Maxford USA can NOT in any way guarantee the performance of your finished model airplane. Furthermore, in purchasing this product, you (the buyer or user of this product) exempt, waive, and relieve Maxford USA from all current or future liability for any personal injury, property damage, or wrongful death, and if you (the buyer or user of this product) are involved in any claim or suit, you will not sue Maxford USA or any of its representatives.

If you do not fully accept the above liability and waiver, you may request a return merchandise authorization number (RMA#) as explained in item 2, below.

If you think there is a missing part or any shipping damage, please read our after-sales service and return policy as outlined below.

1. Inspect your order upon delivery for any shipping damage or missing part. If you find a problem you must contact us within 10 days from receipt of your purchase by calling (562) 529-3988, Monday through Friday, except holidays, between the hours of 8:30 AM and 5 PM Pacific time. During this telephone conversation, and with your support, we will determine how to resolve your concern. (Note: Maxford USA Li-Po batteries are sold without warranty and are not eligible for return or credit.)
2. To request an RMA#, call (562) 529-3988, Monday through Friday, except holidays, between the hours of 8:30 AM to 5 PM Pacific time. If we elect to issue you an RMA#, you must clearly mark this RMA# on the outside of the package. (No return or exchange will be authorized after 10 days from the date of your receipt of the product; any package delivered to us without a Maxford USA RMA# is subject to being returned to the sender, as received, with return postage payable upon delivery.) Returned merchandise must be in its original condition as received from Maxford USA, with no assembly or modification, in the original packing materials, complete with all manuals and accessories. Return shipping and insurance charges must be prepaid by you, the buyer.
3. Returned merchandise that is accepted by Maxford USA for credit is subject to a 10% to 20% restocking fee (the final amount will be determined by Maxford USA upon receipt and examination of the returned merchandise).

Return Address:

Maxford USA RC Model Distribution, Inc.
15939 Illinois Avenue #C
Paramount, CA 90723 (Print the RMA# issued by Maxford USA on the package near the address.)

III. SPECIAL FEATURES OF THIS NIEUPORT 28 MODEL

- Wing panel sets remove from the fuselage for storage and transport.
- Prepainted fiberglass cowl mounted with Maxford USAôs Max Cowling óinvisibleô attachment system.
- Each aileron is separately operated by its own in-wing servo.
- Precut dashboard openings for your ignition and radio switches.
- Wing support kit is included for safe transport and storage.

- Streamlined landing gear with scale-like wheels and steerable tail wheel.
- Scale looking dummy engine, fuel-system venturi and air intake tube.
- Includes cockpit coaming and dummy frapping for struts and cabanes.
- Pull-pull rudder with steerable tail wheel.
- Scale-looking wheels and stick-on decal set.
- Supplied machine gun mounting platforms. (Scale-looking machine guns are optional.)
- Photo assembly instructions.

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IV. SPECIFICATIONS*

Wingspan ..... 70 inches
Wing Area ..... 1,165 square inches
Length ..... 56 inches
ARF weight ..... 10 pounds and 6 ounces
Flying weight ..... 11 pounds and 14 ounces
Engine required (Not included) ..... 26cc gas, 90 to 120 glow or equivalent electric power system
Propeller (Not included) ..... 16 to 18 inch (as recommended for your power system)
Radio system (Not included) ..... Minimum of 4 channels and 5 standard servos (or 4 standard servos and an electronic speed control, if you use an electric power system)

* (All dimensions and weights are approximate.)

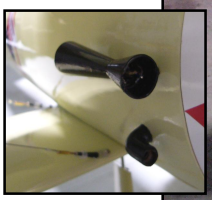
V. PARTS LIST

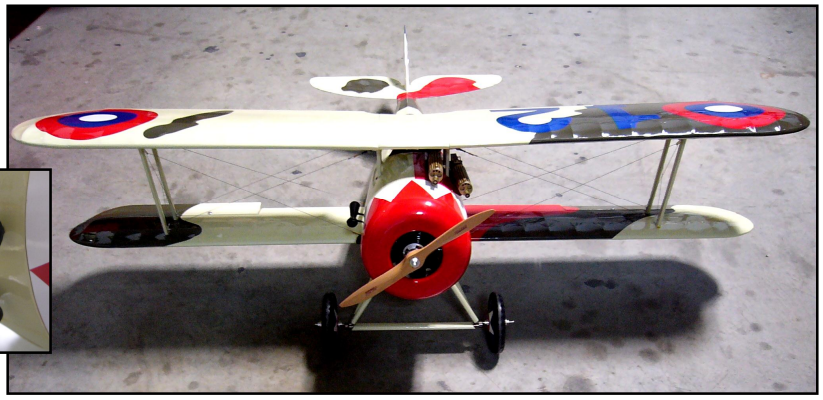
1. Items you must supply to complete this Nieuport 28:

- 5- and 30-minute epoxy or aliphatic resin glue, thin and thick Cyanoacrylate (CA) adhesives.
- Long-nosed and cutting pliers, Allen wrenches, a high speed rotary tool, a pair of scissors and masking tape.
- 26cc gas engine, 90 to 120 glow engine, or equivalent-powered motor system.
- Propeller.
- Five(5) standard-sized servos [four(4) standard servos if you use an electric power system], two(2) 18-inch extensions, one(1) 6-inch Y-connector, and a minimum of a 4-channel radio control system.
- Optional upgrade items: Scale machine guns; WWI pilot figure; Scimitar-type propeller.

2. Items included with this Nieuport 28:

- Precovered fuselage, upper and lower-wing panels and upper-wingôs center section, vertical and horizontal stabilizers, rudder and elevator halves, with all hinge openings precut.
- Prepainted and pretrimmed fiberglass cowl.
- Rudder pull-pull cables and aileron and elevator pushrods.
- Wing joiners, preformed cabanes and struts, and all required control horns, hinges, linkages, wing and tail flying wires and related hardware, including self-threading and machine screws and self-locking nuts (except those normally supplied with the servos and a glow or gas engine or electric power system).
- Fuel tank with clunk and fuel lines included.
- Streamlined landing gear with scale-like wheels.
- Complete set of scale markings.
- Magnetically secured cockpit hatch and coaming.
- Simulated fuel-system venturi and air intake tube.
- This illustrated Instruction Manual.





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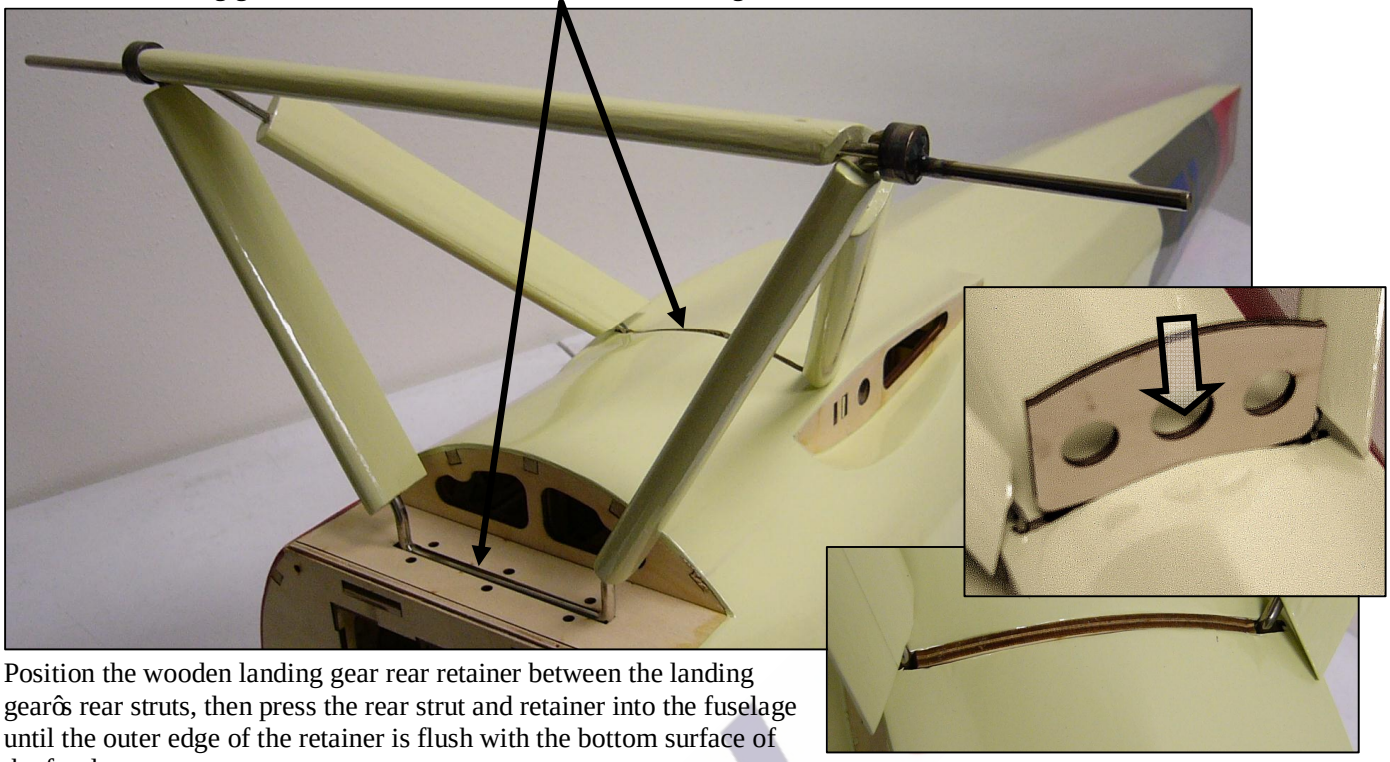
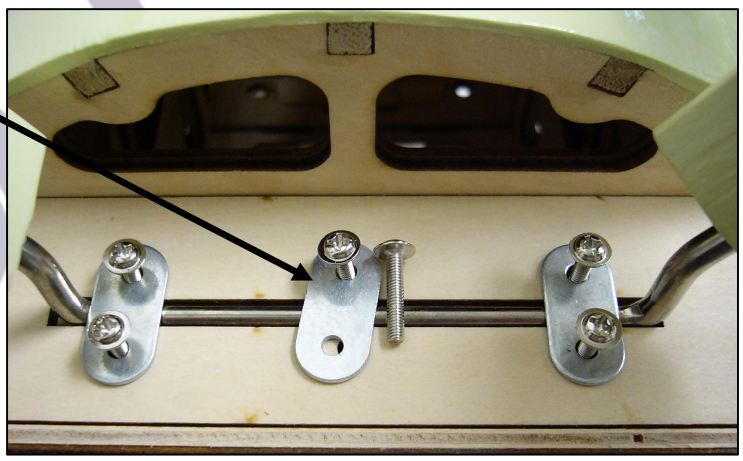
VI. ASSEMBLY PHOTO-INSTRUCTIONS

1. Position the landing gear's cross-struts into the slots in the fuselage.

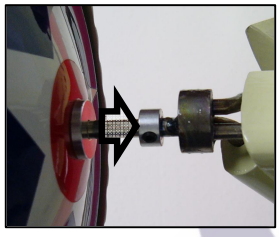


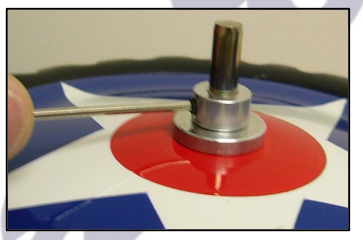
2. Position the wooden landing gear rear retainer between the landing gear's rear struts, then press the rear strut and retainer into the fuselage until the outer edge of the retainer is flush with the bottom surface of the fuselage.

3. Position the three metal landing gear front retainers over the landing gear's front strut. Secure the metal landing gear's front retainers by driving 6 ea. bolts into the 6 ea. blind nuts preinstalled inside the fuselage.

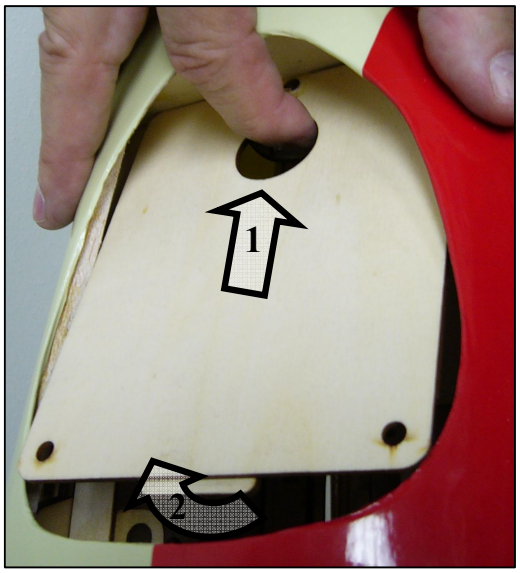


4. Using a total of 4 ea. wheel collars, attach both main wheels to the landing gear's axles with a wheel collar at each side of both wheels and secure with threadlock.





5. Test fit the hatch: (**1**) Lift the rear of the hatch above the magnet and toward the rear; (**2**) Lift the front, and the hatch's front corners will clear the edges of the cockpit. (Note: If you install the cockpit coaming, remove a bit of wood from the hatch's front corners to add some additional clearance.)



6. Slide the lower wing's spar midway through the fuselage, then temporarily position the left and right lower wing panels onto the lower wing's spar.

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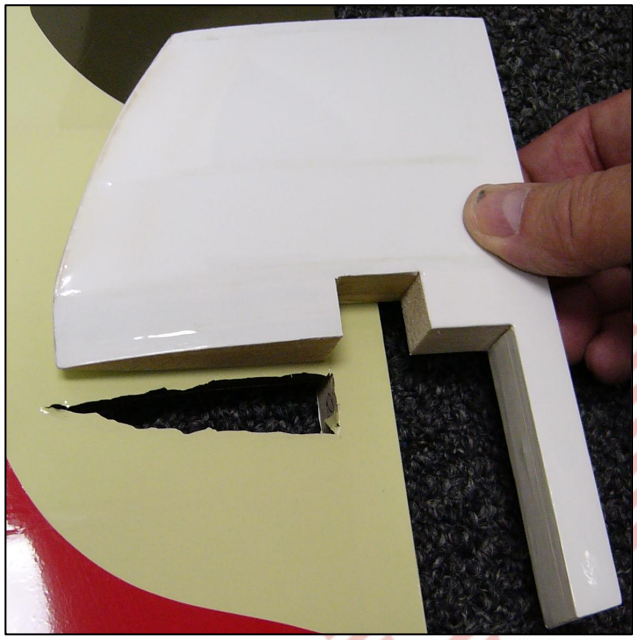
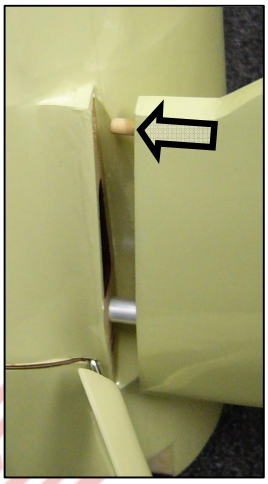
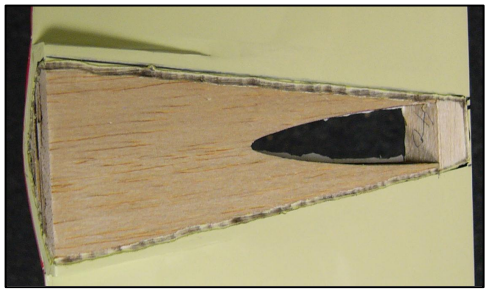
(Note: As you press the lower wing panels firmly against the fuselage, carefully align the lower wing panelôs dowel pins with the matching openings in the fuselage.)

7. Cut away the Mylar covering the slotted opening in the horizontal stabilizer for the vertical stabizer and test-fit the vertical stabilizer to the horizontal stabilizer.

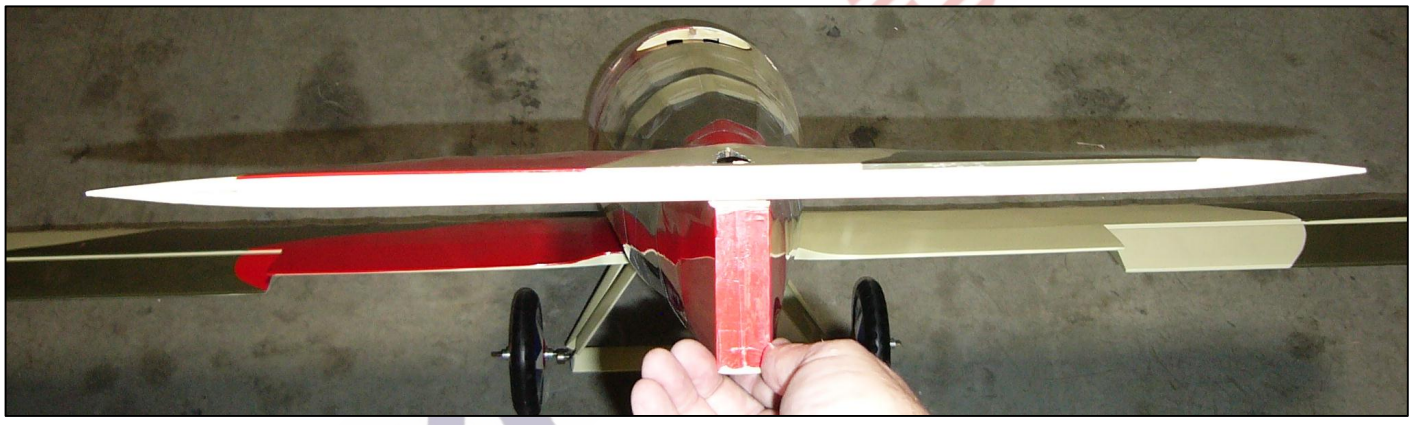




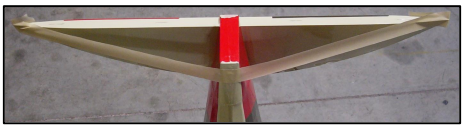
8. Test fit the horiz. stabilizer to its platform at the top-rear of the fuselage. Remove the Mylar at the bottom of the horiz. stab. to ensure a good wood-to-wood glueing surface between the horiz. stab. and the fuselage as shown below.



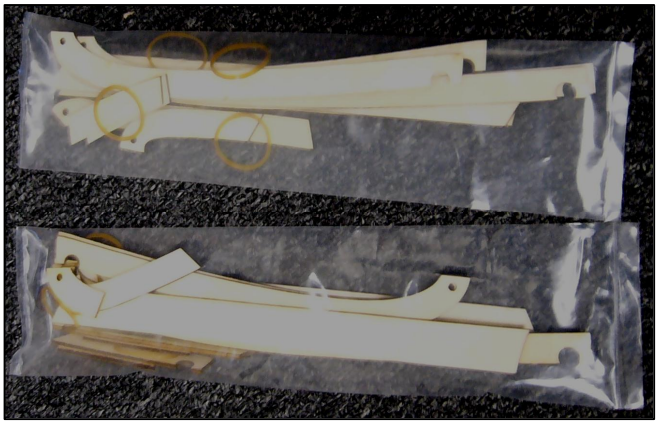
9. To ensure the horizontal stabilizer is parallel to the lower wing, visually compare the lower wing to the horizontal stabilizer.



10. Secure the horiz. stab. to the fusealge with 30 minute epoxy. Use masking tape to hold the horiz. stab. parallel to the lower wing until the epoxy is fully cured.



11. Identify two identical plastic packets containing all the parts for the wooden wing supports which help to ensure the wings, struts and wing wires may be safely transported and stored when removed from your Nieuport 28.



12. Test fit the parts of the two sets of wooden wing supports as shown at the right.

13. Glue the wooden wing supports together with epoxy or aliphatic resin.

(Note: One layer of curved pieces at the top and bottom is ommitted above for clarity. When completed, each supportsô curved wooden surfaces have three layers of wood touching the left and right pair of wing panels against the bottom of the top wing and the top of the bottom wing. Secure the wing supports to the wing panels with rubber bands or string.)

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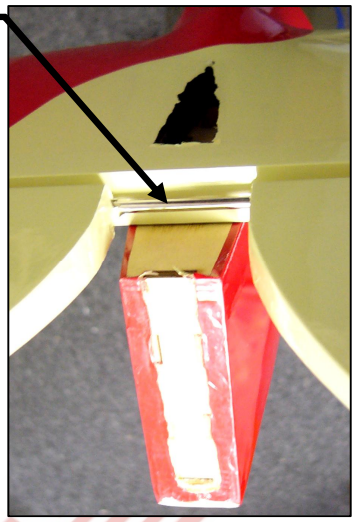
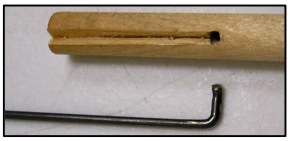
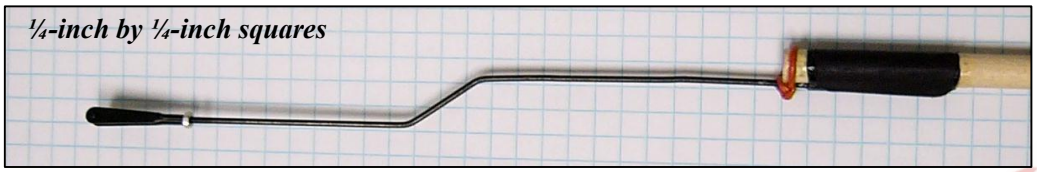
14. Securely glue the metal joiner into the each half of the elevator.



15. After the epoxy used to secure the horizontal stabilizere to the fuselage has fully cured, use CA hinges to attach the elevator to the horizontal stabilizer.

16. Make sharp 90-degree bends in the ends of two metal pushrods. Cut a groove leading to the predrilled holes in each end of the wooden elevator pushrod. Permanently attach each metal pushrod to the wood by wrapping the ends with epoxy-coated thread or string and/or heat-shrink tubing. Bend one of the metal pushrods so it can exit the aft end of the fuselage and be attached to the elevatorôs control horn as shown below.

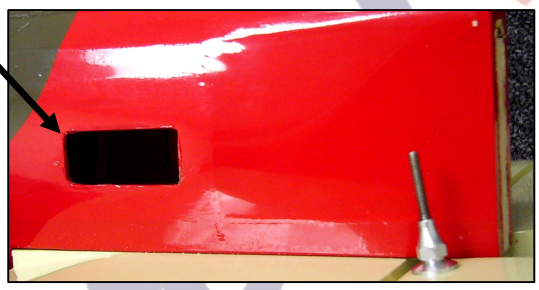


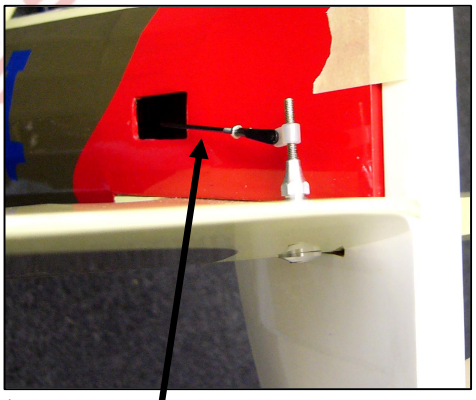


17. Use a Servo Tester or connect your servos to your radio and ócenterôeach servo. Disconnect the servos and set aside your Servo Tester or radio system. (Reminder: To help ensure the security of each servo extension connection, we recommend you install an optional ñservo extension safety clipò at all servo wire/extension junctions.)

18. Use epoxy to secure the vertical stabilizer into the opening in the horizontal stabilizer and to the rear of the fusealge. Use masking tape to hold the vertical stabilizer at 90-degrees relative to the horizontal stabilizer until the epoxy is fully cured.

19. Cut and remove the Mylar covering one of the rectangular openings at the rear of the fuselage.*
*(***Plan ahead**: If you use a gas or glow engine, its throttle servo must be mounted on the opposite side of the airplane as the rudder pushrodôs opening.)

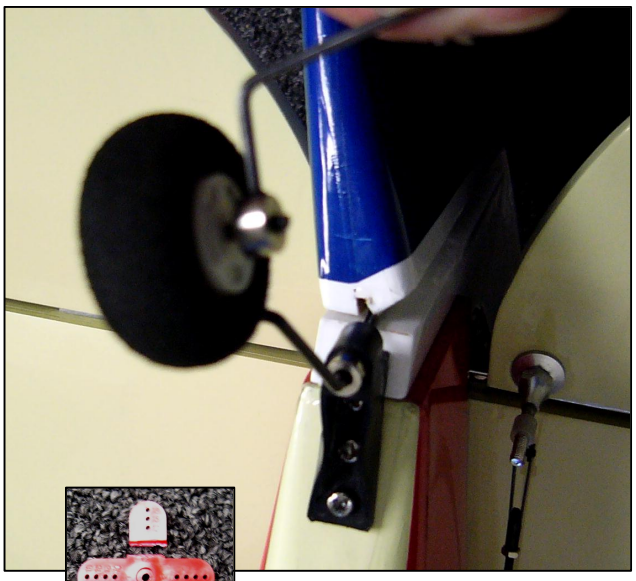




20. Guide the end of the elevator pushrod with the bent end into the opening in the nose, through the fuselage, and out of this rectangular opening.

21. Test fit the elevator control horn. Drill a hole in the elevator and mount the elevator control horn to the elevator. Attach the elevator pushrod to the elevatorôs control horn.

22. Attach an EZ Link connector to your elevator servoôs arm. Install your elevator servo in an outer position in the fuselageôs servo mounting tray on the same side of the airplane as you installed the elevator control horn. Trim the length of the forward end of the elevator pushrod to fit the position of the elevator servoôs EZ Link connector. Hold your elevator at neutral (on the same level as the horizontal stabilizer) and tighten the elevatorôs EZ Link connector onto the elevator pushrod.



23. Position the tail wheelôs strut immediately behind the vertical stabilizerôs vertical post and use three screws to attach the tail wheel to the bottom-rear of the fuselage. (Do NOT apply thread-lock compound at this time to these three screws.)

24. Ensure the tail wheel spins freely on its strut. use an Allen wrench to tighten the tail wheelôs collar and secure with threadlock.

25. Prepare your rudder servoôs output arm to operate the pull-pull cables without binding: If you will use an ñXò output arm on your rudder servo, cut off and discard one of the thickest arms and ream the armôs outer holes as necessary to fit the supplied clevises.

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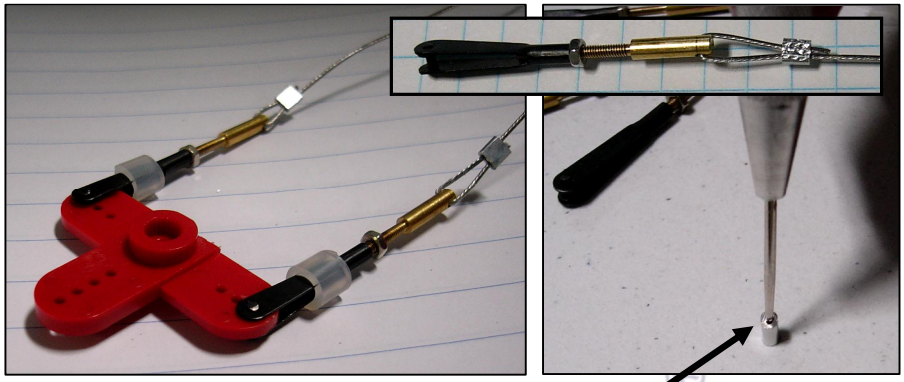
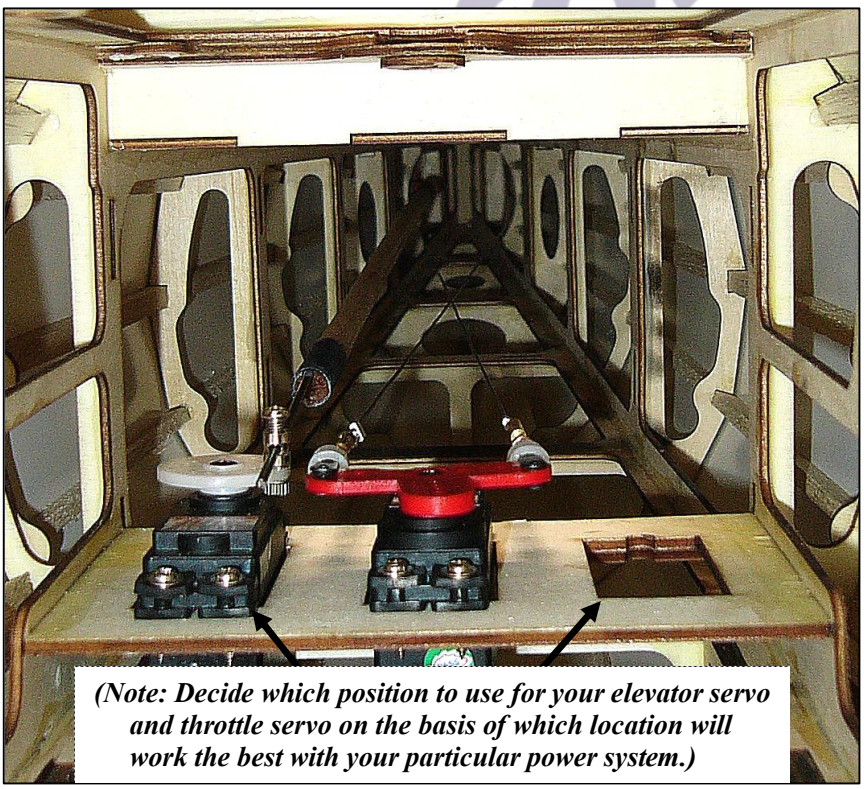
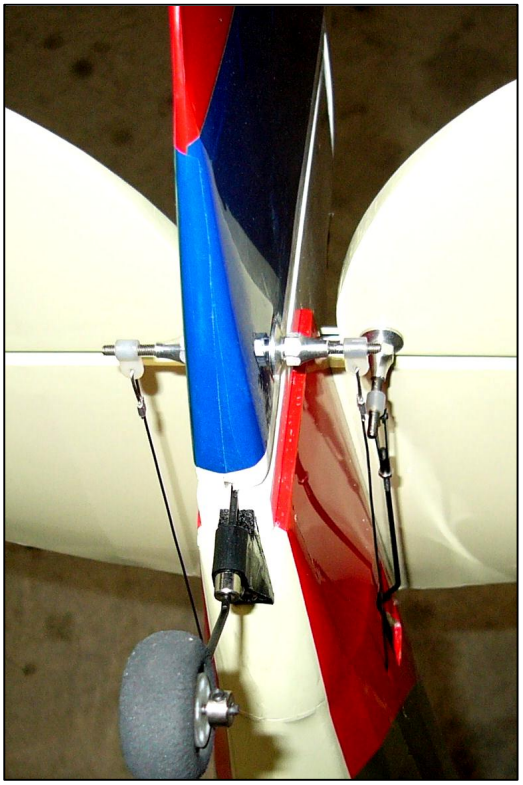
26. Prepare two clevises twisted halfway onto their brass rods. Slide crimp tubes onto one end of the rudder cables. Guide the end of the cable through the hole in the threaded rod. Bring the end of the cable back into and all the way through the crimp tube. Use pliers to firmly squeeze the crimp tube to secure it to the cable. Attach the clevises to the rudder servoôs output arm and secure each with a short length of silicon tubing.
(Note: If necessary, use the tip of a scribe or a small nail to slightly expand the crimp tubeôs openings.)



27. Attach the rudder servoôs output arm (with its attached pull-pull cables) to your rudder servoôs output shaft. Install your rudder servo (with its control arm and pull-pull cables) in the center position of the fuselageôs servo mounting tray.
28. Use a bright light or gently apply pressure with the tip of your finger to locate the two precut slitted openings for the rudderôs pull-pull cables. (They are on the left and right sides of the fuselage under the Mylar below and in front of the rectangular elevator pushrod openings). Cut a small opening in the Mylar covering each of the openings.
29. Guide a length of straight coat hanger (or heavier) wire into the pull-pull cableôs opening in the left side of the tail, into the fuselage, and to the servo tray. Use masking tape to temporarily attach the free end of the right-side rudder pull-pull cable to the end of the length of coat hanger (or heavier) wire. Gently pull the coat hanger (or heavier) wire and the attached pull-pull cable out through the small opening in the tail. Remove the masking tape to free the end of the pull-pull cable, and temporarily secure the end of the wire to the rear of the fuselage with masking tape. Repeat the above process to pull the rudder servoôs left side pull-pull cable through the opening in the right side of the tail. (Note: The rudderôs pull-pull cables cross over each other inside the fuselage.)
30. Use CA hinges and epoxy to attach the rudder to the bent end of the tail wheelôs strut and to the vertical stabilizer.
31. Test fit and install the rudderôs pull-pull horn assembly directly behind where the rudderôs pull-pull cable exits the fuselage.
32. Use masking tape to temporarily hold the rudder in a neutral (straight ahead) position. Slide a crimp tube onto each of the rudderôs pull-pull cables. Guide the end of the cable through the holes in the rudderôs control horns. Draw the pull-pull cables snug, then guide the end of each cable back into and all the way through its crimp tube. Use pliers to firmly squeeze each crimp tube to secure the rudderôs pull-pull cables. Trim off the excess cable and remove the masking tape from the rudder.



(Note: Decide which position to use for your elevator servo and throttle servo on the basis of which location will work the best with your particular power system.)



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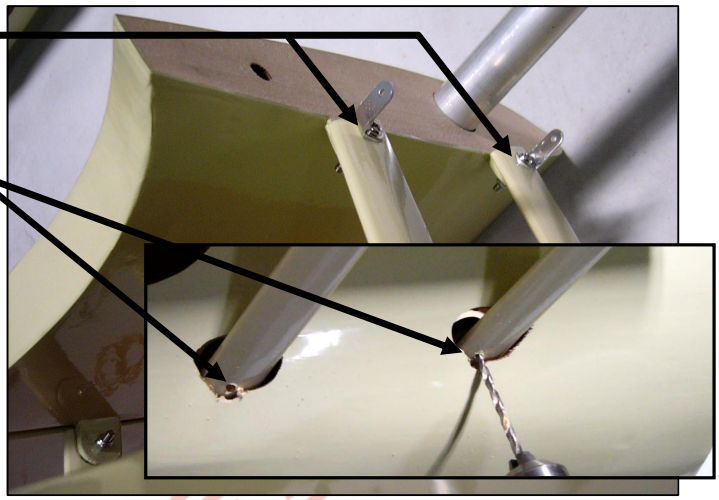
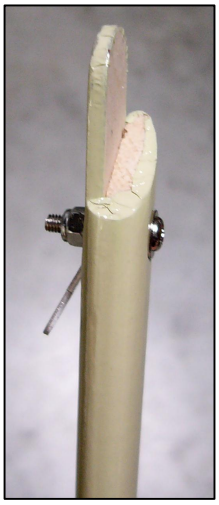
33. Cut a small opening in the Mylar covering each of the openings in the four mounting tabs in the top wingôs center section.

34. Use the holes in the center sectionôs tabs as a guide to drill a hole in each cabane strut.
35. Attach each cabane strut to the top wingôs center section with a bolt and nut plus a metal wing wire anchor.
36. Insert each cabane strutôs mounting tab into its mounting pocket in the fuselage.
37. Drill a 3/32-inch guide hole through each cabane strut and into the inner wall of each pocket.
38. Secure the cabane struts to the fuselage by driving a wood screw into each guide hole.

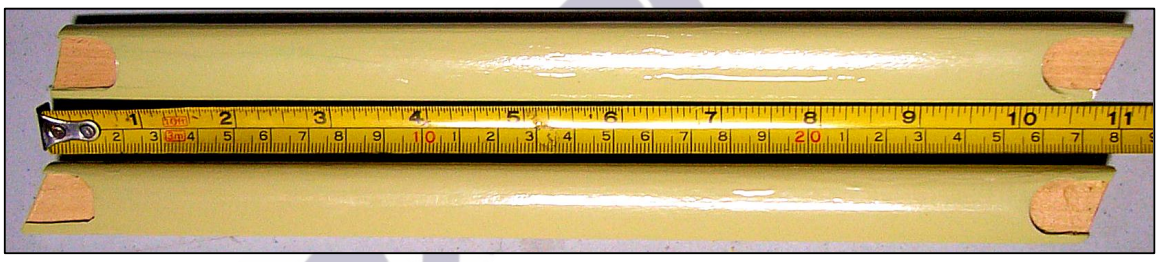


(If future repairs are not a concern, also apply some glue to permanently secure the cabane struts in their fuselage pockets.)

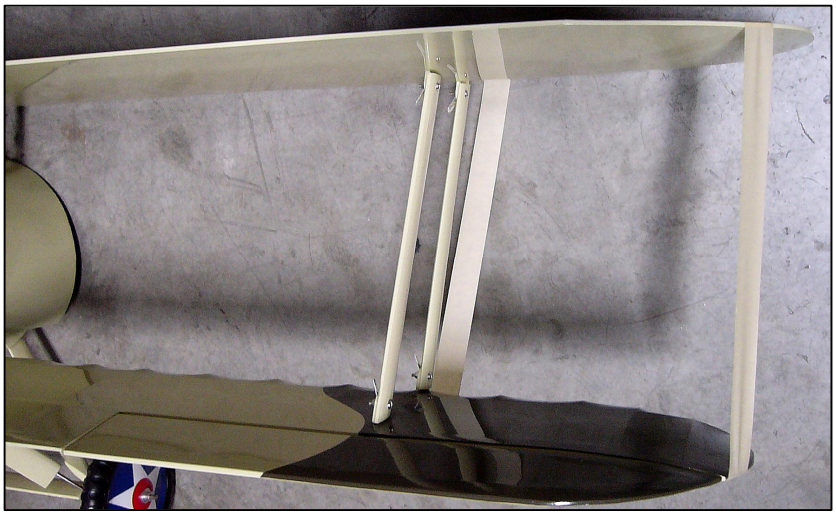
39. Prepare the 4 wing struts for installation: Test fit a strut mounting tab at each end of all four struts; drill a set of holes through both ends of each strut and its mounting tab; secure each tab to its strut with a bolt and nut plus a metal wing wire anchor as shown at the right.



40. Test fit the wing struts into the openings in the top of the bottom wing: The shorter struts belong at the front (nearest the leading edge); the longer struts go in the rear (nearest the trailing edge).



41. Slide the upper wingôs spar midway through the upper wingôs center section, then position the left and right upper wing panels onto the upper wingôs spar. As the upper wing panels near the upper wingôs center section, carefully align the upper wing panelôs dowel pins with the matching openings in the upper wingôs center section.



42. Carefully guide the wing struts into their openings in the bottom of both left and right panels of the top wing. Use 5-minute epoxy to secure all four wing struts and tabs into their openings in both the top and bottom wing panels. While this epoxy is fresh, firmly press the left and right pairs of top and bottom wing panels together, secure each pair of wing panels with masking tape, and set the fuselage with its wing panel assemblies aside until the epoxy is fully cured.

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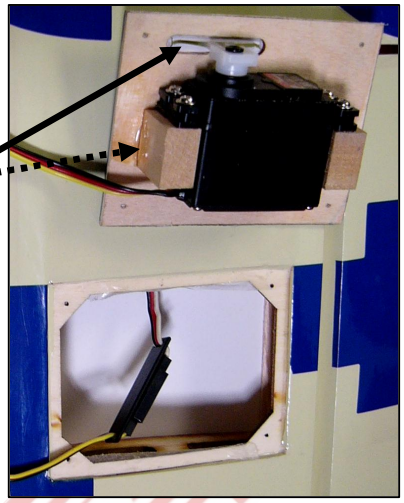
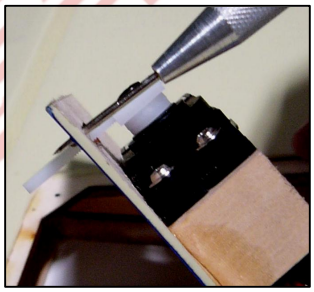
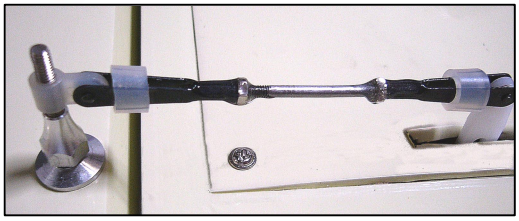
43. After the wing strutôs epoxy has fully cured, remove the masking tape from the left and right pairs of wing panels.
44. Drill guide holes in the provided hardwood blocks to fit your servoôs mounting-hole pattern. Use the servo manufacturerôs hardware to attach a servo arm to each aileron servo and to attach an aileron servo to each of the aileron servo mounting hatchplateôs hardwood mounting blocks.
45. Cut the hatchplateôs Mylar to open the precut slot for each aileron servoôs output arm. Position each aileron servoôs output arm in the center of its slot and use epoxy to secure each servo on its mounting blocks to its hatchplate.



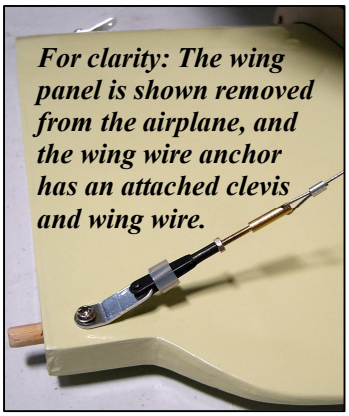
46. Slide the left and right pairs of wing panels a few inches away from the fuselage and from the top wingôs center section. Tape the male end of an 18-inch servo extension to one end of a length of straight coat hanger (or heavier) wire. Guide the wire and servo extension inside the bottom wing from the root rib and into each aileron servoôs wing compartment.
47. Connect the servo extensions to the aileron servos. (Reminder: To help ensure the security of these servo extension connections, install an optional ñservo extension safety clipò at all servo wire/extension junctions.)
48. Use a scribe or a small, sharp nail to open the Mylar covering the predrilled mounting holes in the four corners of each aileronôs hatchplate, position the hatchplates over the aileron servoôs wing compartments and secure each hatchplate with 1/4-inch wood screws.



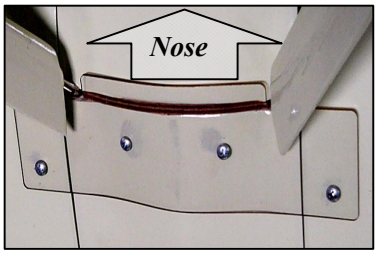
49. Secure each aileron to its wing panel with thin CA and the included CA hinges. Temporarily hold each aileron in its óneutralô position by placing a piece of masking tape between each aileron and the trailing edge of the adjacent wing.
50. Attach an aileron pushrodôs clevis to the output arm of each aileron servo and align each pushrod toward its aileron, directly to the rear of the servo. Secure each clevis with a short length of silicon tubing. Using the pushrod as a guide, mark and drill a hole hole in each aileron, install the aileron control horn assemblies, and attach the clevis on the loose end of the aileronôs pushrodôs to the aileronôs control horn. Remove the masking tape from the ailerons. (Reminder: Once the clevises are adjusted, coat each clevis and rod with epoxy to securely and safely affix each clevis to its rod; also, as a safety precaution, check each clevis before and after each flight.)



51. Using wood screws, attach two(2) wing wire anchors: One near the leading edge and the second near the trailing edge of the lower wing (at 1-inch from the root rib at the leading edge and 1/2-inch from the root rib at the trailing edge). Harden the holes with thin CA adhesive where the wing wire anchor screws are inserted into the wood. Direct the free end of each wing wire anchor away from the fuselage as you tighten these two screws.


For clarity: The wing panel is shown removed from the airplane, and the wing wire anchor has an attached clevis and wing wire.

52. Remove the masking tape from the ailerons and guide the excess servo extension wires inside the fuselage as you slide the left and right pairs of wing panels firmly against the wing center section and fuselage.
53. Test-fit the plastic wing/landing gear retainer between the landing gearôs rear cross-member and the two lower wing panels. Position two of its mounting holes behind the landing gearôs rear crossmember, covering the slot in the bottom of the fuselage to secure the main landing gearôs rear cross-member, and position the remaining two holes onto each of the lower wing panels. Using the predrilled holes in the retainer as your guide, drill four 1/16-inch guide holes: into the fuselage and into both lower wing panels. Use four wood screws to secure the retainer to the fuselage and to the lower wing panels. (Note: If future repairs are not a concern, you may permanently secure the landing gearôs wooden retainer into its slot in the fuselage with glue.)



54. Twist 2 clevises halfway onto their brass rods. Slide crimp tubes onto all four 59-inch long wing wires. Guide the wire through the hole in the rod. Bring the wire back into and through the crimp tube, then firmly crimp the tube onto the wire.

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55. Attach the wing wireôs clevises to the wing wire anchors near the root rib of each lower wing panel (see anchor points 1 and 5, below). Secure each clevis with a short length of silicon tubing, then coat the clevis and rod with epoxy.

56. Install wing wires between the upper & lower wing panels as shown in the following illustrations ï

Warning: As you guide the wing wires between the numbered anchor points, adjust the tension on each segment of the wire to ensure the wing panels do not become warped. Although these wing wires are mostly cosmetic, it is possible for uneven tension on the wing wires to warp the wings, causing the airplane to not be safely controllable in flight.

Diagram of ***left-side*** *pair of wing panels*

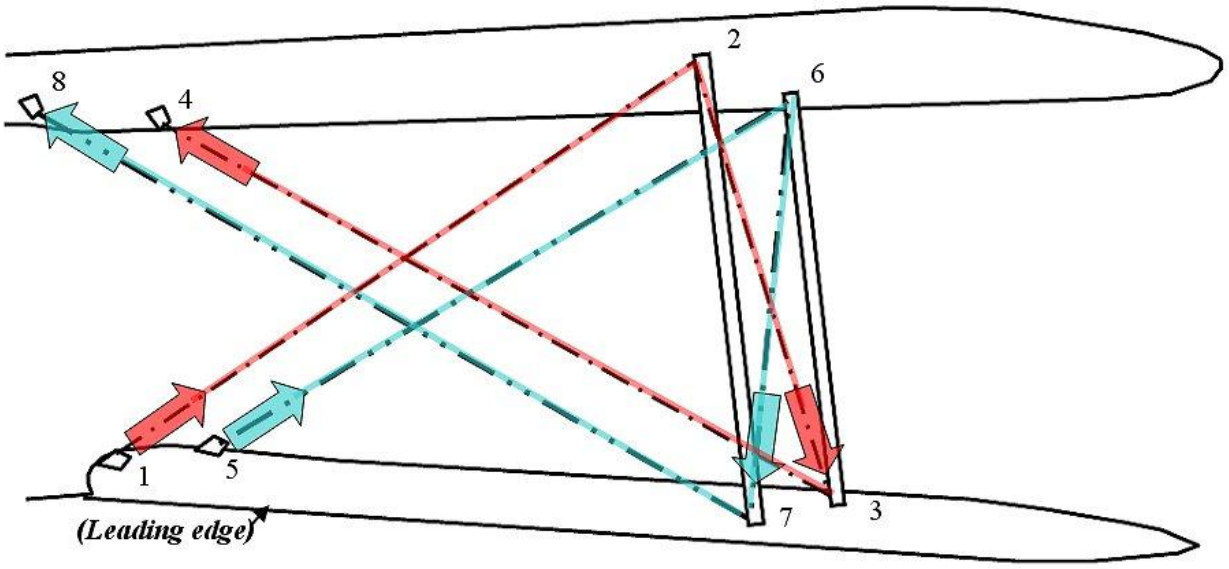
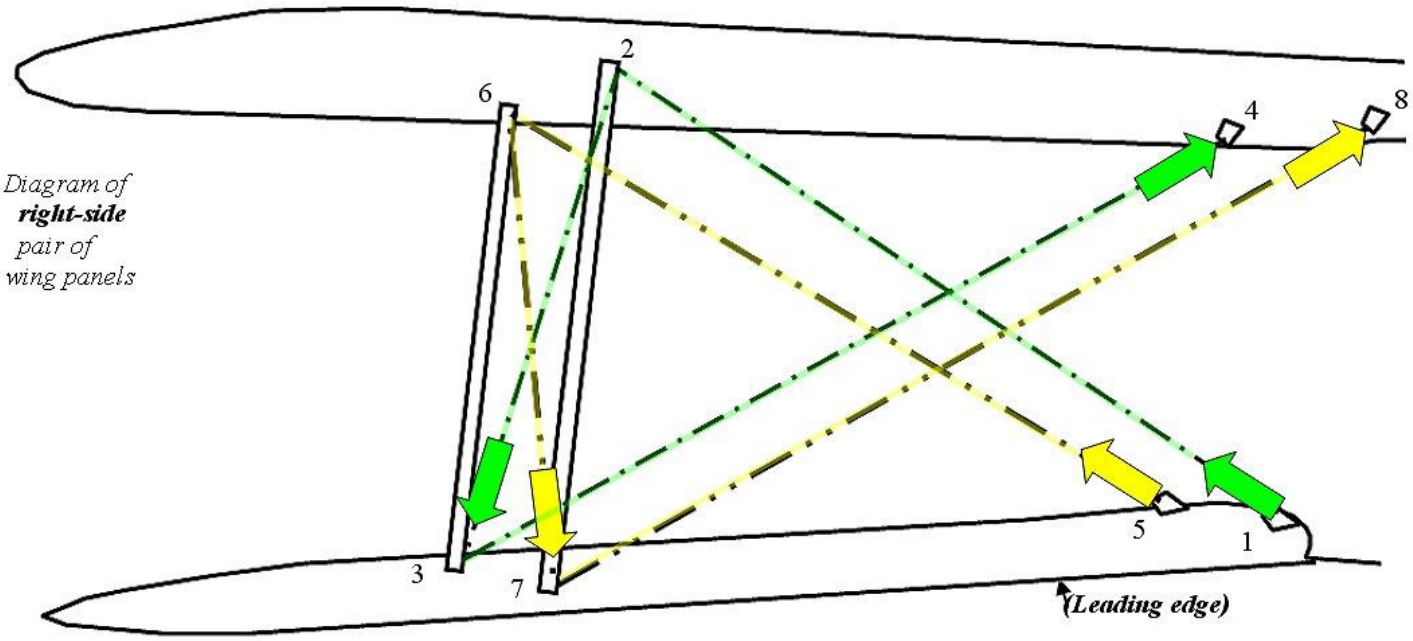


Diagram of ***right-side*** *pair of wing panels*



57. After the wing wires have been routed through all anchor points (1 through 8), secure the end of each wing wire by installing a final set of threaded brass rods and clevises at anchor points 4 and 8 at the top of each cabane strut.

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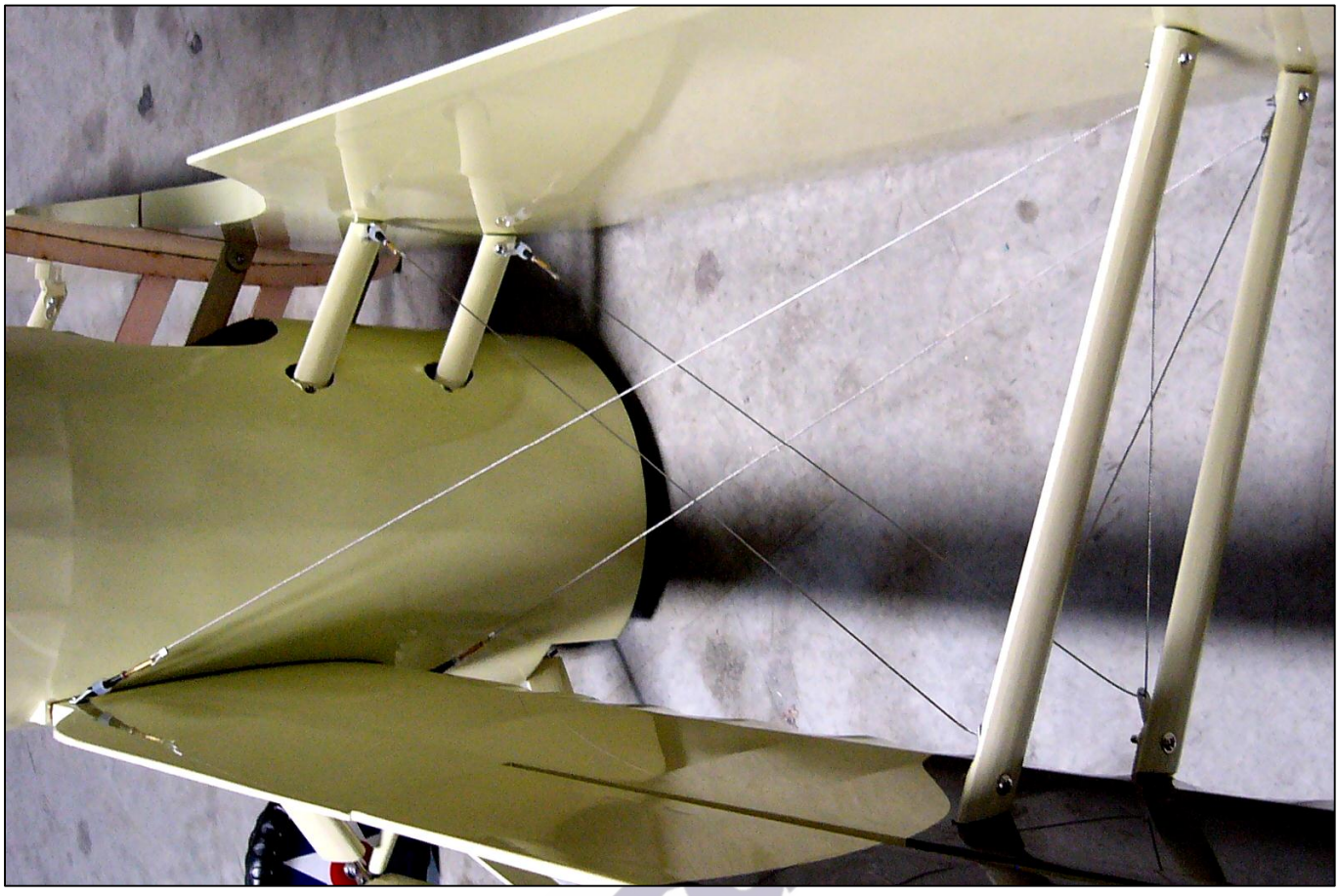
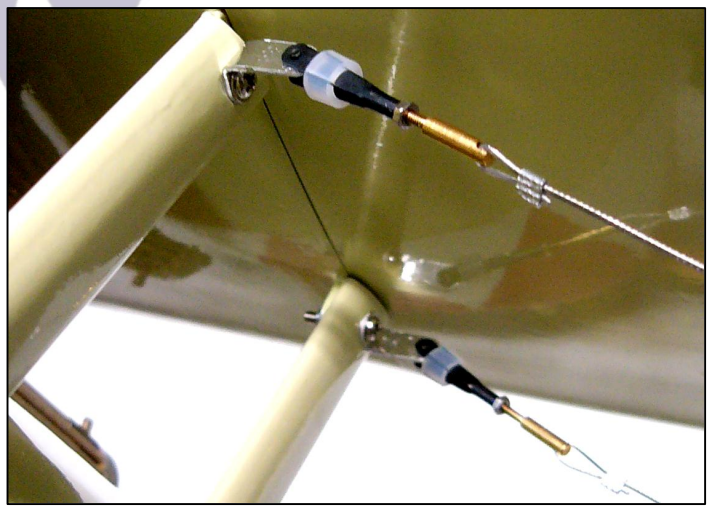
58. Once installed and correctly adjusted, the wing wires appear as shown below ï

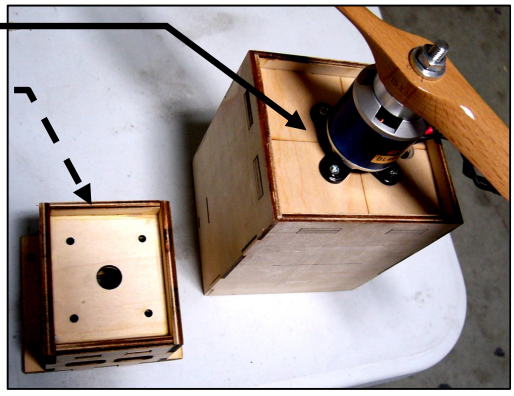


59. Cut and remove the excess wire. Adjust the clevises to ósnugô the wing wires. Tighten each brass rodôs lock nut against its clevis. Add a short length of silicon tubing. Coat the the clevises and rods with epoxy.



NOTE: Since there are no industry standards for engine mounts, RC-radio features, nor the varied personal preferences of todayôs RC pilots, the following power system installation steps are generalized ï you are invited to make adjustments in accordance with your particular engine, motor, radio equipment and favored flying style. If you require assistance, call us or the maker of your engine, motor or radio, or call upon your local RC clubôs instructor or WWI warplane óguru.ô

60. If you install an electric power system, the dimensions of your motor might allow you to mount the motor directly onto the supplied engine mounting box. (An optional electric motor mounting box is available to bolt to the front of the supplied engine mounting box if required.)



61. To utilize the engine mounting boxôs built-in tilt and offset, position your engine or motor so its propellerôs backplate is in line with the intersecting lines drawn on the engine mounting boxôs firewall.

62. Once you determine your engineôs or motorôs correct position, drill holes in the mounting boxôs firewall for the engineôs or motorôs mounting bolts, and any other required openings (such as high-voltage ignition leads, throttle servo mounting and/or control wires, etc.).

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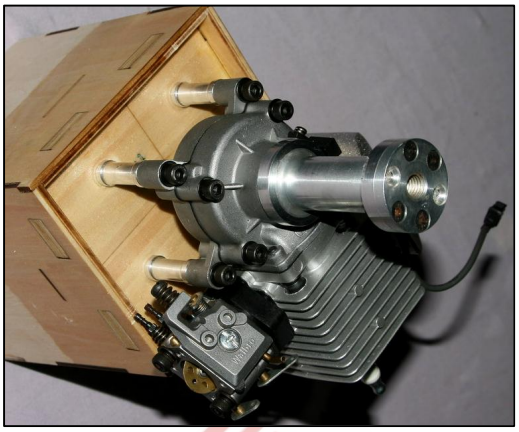
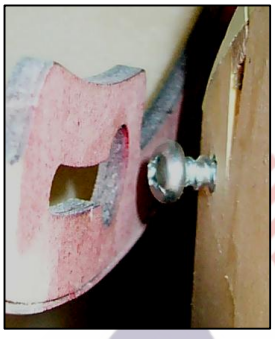
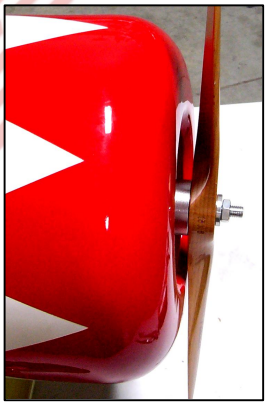
63. Secure your engine or motor to the engine boxôs firewall using the engineôs or motorôs supplied T-nuts, mounting bolts, standoffs, washers, etc.. If you are using a 90- to 120-sized glow engine, install an engine mount sized to fit your particular engine. If you install an electric power system, use your electric motorôs supplied mounting hardware to attach your motor to the included engine box, or you may purchase an optional EP motor mounting box for attachment to the front of the engine box.



64. If you are using a gas or glow engine, install the supplied fuel tank inside the engine mounting box. Route all appropriate fuel lines (such as the óclunkô line to the carburetor, vent line, and a line to fill the tank). If you are using a gas engine, you may also install a ókillô switch and/or any extra linkages or controls your engine may require. Power system batteries may be attached on either side or at the top and bottom of the engine mounting box.

65. Slide the engine mounting box into its opening in the Nieuport 28ôs nose and test-fit how far the engine mounting box needs to be slid inside the opening in the fuselage so the engineôs (or motorôs) propeller backplate has approx. 3/16-inch clearance between the back of the propeller and the front of the cowl.





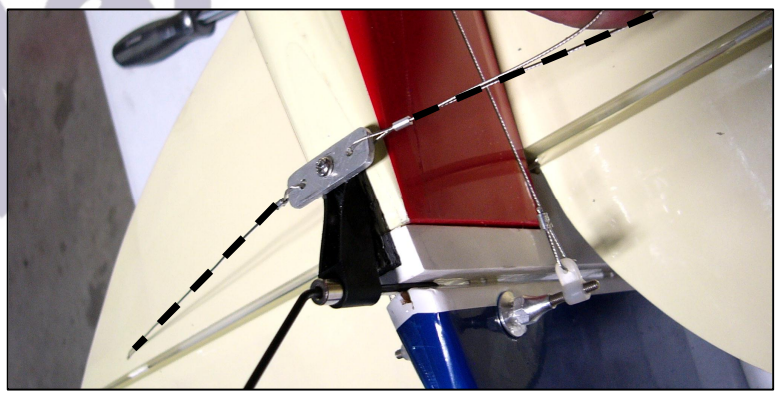
66. Install 4 wood screws at the locations marked on the fuselageôs front former. Adjust the depth of each screw to fit the Max Cowling mounting ring, then lock each screw into position with a few drops of thin CA adhesive. (Whenever these four screws are captured in the cowlôs four key-shaped openings, the cowl is then held in position by two preinstalled magnets at the top of the cowl.)

67. Make any necessary engine-access, exhaust and/or cooling openings in the cowl. (Note: If you drill, grind or sand the fiberglass cowl, wear safety goggles, a particle mask, and rubber gloves to guard yourself from eye, skin and respiratory-tract irritation; never blow into the cowl to remove fiberglass dust ï the dust may blow back into your face.)

68. Attach the two included pieces of aluminum L-channel with wood screws to secure the engine mounting box to the fuselage.

69. To install the empennage wire, make three small holes in the tail section: One at the top of the vertical stabilizerôs tail post; and two more at approx. 8 1/4-inches on each side of the center of the horizontal stabilizer (through each of the horizontal stabilizerôs outer CA hinges).

70. Use the tail wheelôs forward-most mounting screw to attach the empennage wireôs mounting plate at the front of the tail wheel. Use the supplied length of empennage wire and a crimp tube to attach one end of the empennage wing wire to the mounting plate. Guide the wire up and through the hole in the horizontal stabilizer, to and through the hole at the top of the vertical stabilizerôs tail post, then down and through the second hole in the horizontal stabilizer.



71. Pull the wire snug, use a crimp tube to attach the loose end of the wire to the remaining hole in the mounting plate, then cut off and discard the remaining length of excess wire.

72. Apply CA adhesive to securely anchor the tail-wheelôs mounting screws into the fuselage. As a safety precaution, double-check that every brass rodôs lock nut is snugged against its clevis and that every clevis and brass pull-rod is permanently anchored with a coating of epoxy.

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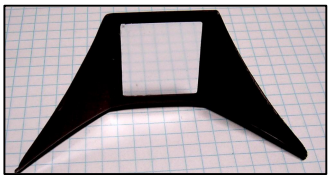
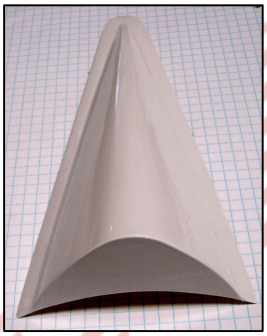
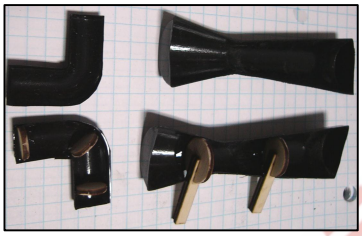
73. Test fit the dummy engine inside the cowl and use your engineôs or motorôs propeller backplate as a guide to make an opening in the center of the dummy engine. Use a high speed rotary tool with a router bit or small sanding drum to form a smooth, properly fit opening. Also use a high speed rotary tool with a router bit or small sanding drum to cut away the molding-flash between cylinders. When you are content with the size of the openings and fit of the dummy engine, secure the dummy engine inside the cowl with epoxy. (Note: Installation of the dummy engine is optional, since it is barely visible inside the cowl.)



74. Free the windshield from its molding-flash, then test fit and trim the windshield to fit in front of the cockpit. Using epoxy, thick CA or windshield adhesive, secure the windshield at the front of the cockpit. (Use care to ensure the top-edge of the windshield is visually aligned with the top wing.)

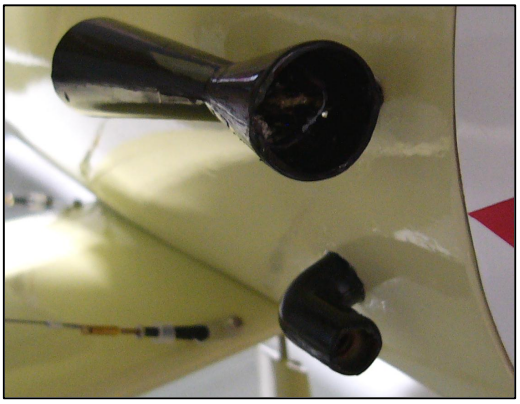


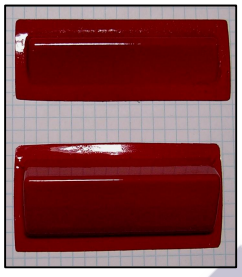
75. Free the turtle deck from its molding-flash. Use epoxy, thick CA or windshield adhesive to secure the turtle deck behind the cockpit at the center-top of the fuselage.

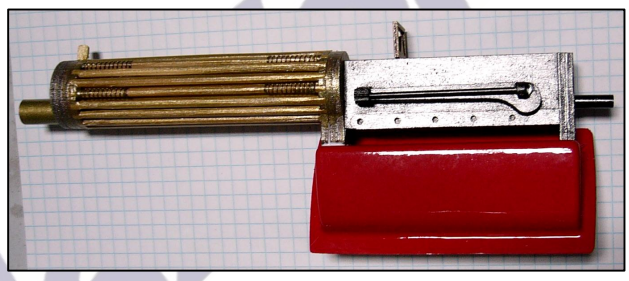


76. Free the venturi and air intake tube from their molding-flash; free the laser-cut plywood mounts and internal formers from their excess wood. Assemble and use epoxy to bond together the two halves of the venturi horn and intake tube, then sand the joined surfaces smooth and apply touch-up paint as needed. Make mounting holes on the right side of the fuselage behind the cowl and use epoxy to secure the venturi horn and vent tube as shown at the right.

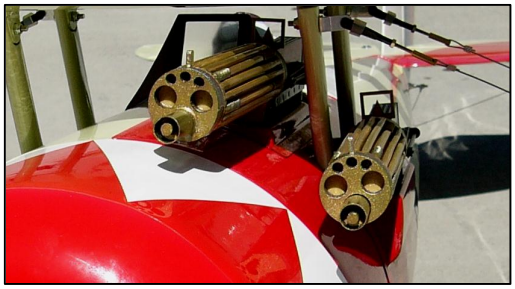
77. If you are installing the optional machine guns, free the machine gun mounts from their molding flash, then drill guide holes and use wood screws and epoxy to attach a gun to each mount. Apply epoxy or thick CA adhesive around the base of each mount and position and hold it against the fuselage until the glue is fully set.







78. Align the landing gear fairings and apply epoxy at each end of the fairings to hold them in position on the landing gear struts.



79. Install your radio equipment and make any necessary adjustments to servo control throws including the engineôs throttle, ókillôor choke controls, etc.

80. Mount your engineôs ignition switch and your radio receiverôs power switch in the cockpitôs precut dashboard openings. (Note: The cockpit dashboardôs openings are sized to fit Maxford USAôs heavy duty óDSC Switch with Charge Jackôï rated for up to 8A, this switch includes a built-in charge jack with a JR connector, mounting plate, mounting screws, 20-inch long wire leads and Futaba male and female connectors. Available at www.maxfordusa.com.)

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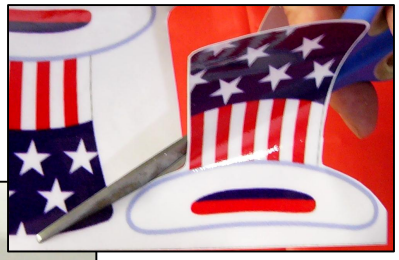
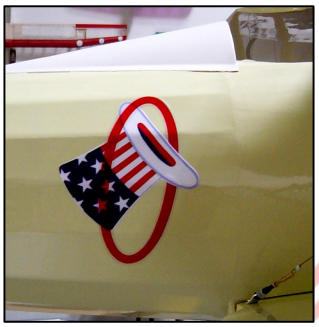
81. Using the ôMax Cowlingô feature, twist and lock the cowl in place ï and it will be held in position with its built-in magnetic latch.

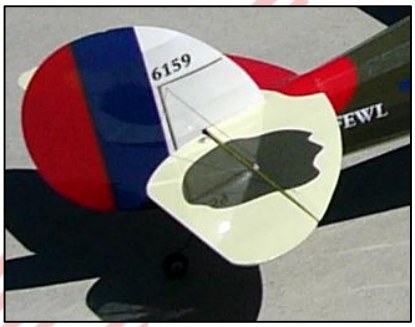
82. Balance and install your propeller. (Note: An optional Xoar WWI Scimitar Style painted wood propeller is available from Maxford USA at www.maxfordusa.com.)

83. Trim around the ñHat in the Ringò and the tail number markings.

84. Peal and stick the markings in their positions as shown below.







85. To further enhance the scale appeal of your ARF Nieuport 28 you may optionally: Wrap simulated frapping (supplied in the form of trim tape) around each of the struts; cut off and discard the excess length of axle that extends beyond each outer wheel collar; use epoxy to attach an optional 1/5 scale WWI pilot figure (available at www.maxfordusa.com) to the cockpit hatch; and use epoxy, thick CA or windshield adhesive to install the included presliced cockpit coaming around the edge of the cockpit. (Note: If you install the cockpit coaming, remove a bit of wood from each of the hatchôs front corners to maintain the necessary clearance for installing and removing the cockpit hatch.)

Congratulations! Assembly is finished!

VII. SETUP AND ADJUSTMENTS

1. Set the Nieuport 28ôs center of gravity (CG) within 3 5/8- to 3 7/8-inches back from the leading edge of the top wing. If necessary, move batteries and/or add weight to the nose or tail to ensure the CG is correct.

2. Check the heat-shrink covering materialôs joints and surfaces; if necessary, carefully use a dedicated covering-material iron and heat gun to secure the edges and to tighten any loosened areas. Recheck and retighten from time to time.

3. Check/adjust servo centering, direction and end-point adjustments. When you pull the right stick toward you, the elevator should deflect upwards; push the right stick to the right and the right aileron should deflect upwards and the left aileron should deflect downwards; push the left stick left and the rudder should deflect to the left as viewed from the rear of the fuselage. Review your radioôs instruction manual if you require assistance with any radio-related servo-adjustment questions.

4. If you are using a Computer Radio: For initial flights set all linkages for near-max. possible deflections; then, soften the aileronôs and elevatorôs control throws by selecting 60% or more exponential (use 30% exponential for the rudder).

Initial settings if you are using a Non-Computer Radio:

	Low rates	High rates
Ailerons	±12 degrees / ±3/4 inches	±20 degrees / ±1 inch
Elevator	±12 degrees / ± 1 3/4 inches	±15 degrees / ±2 inches
Rudder	±20 degrees / ±2 inches	±25 degrees / ±3 inches

5. Trim adjustments: The ailerons and rudder will probably require no adjustments (you will probably be able to leave them centered, as assembled); however, be prepared to set the elevator trim depending on how slow or fast you fly. For example, if you prefer to fly at slow, scale-looking air speeds, your Nieuport 28ôs elevator will probably require a bit of up-trim.

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VIII. PREPARATION FOR TRANSPORT AND FIELD SETUP

1. To remove and store the wings:
   a) Remove and set aside the two wood screws that secure the plastic wing/landing gear retainer to the two lower wing panels.
   b) Release the four wing wire clevises at the top of the center sectionôs cabanes struts.
   c) Gently pull the wing panels outwards a few inches, disconnect the aileron extensions from the Y-cable, and set aside the servo extension safety clips.
   d) Continue to gently pull outwards on each set of wing panels until the left- and right-side pairs of upper and lower wing panels slide fully off their wing joiner tubes.
   e) Use the supplied wing-transport ócrutchôassemblies and rubber bands or string to safely store each set of left and right wing panels.
   f) For safe-keeping, drive the two wood screws removed in step óaôabove into their CA-reinformed openings in the lower wing panels.
2. To reinstall the wings:
   a) Carefully align and slide each set of left and right wing panels toward each other on the joiner tubes.
   b) Remove and set aside the wing-transport ócrutchôassemblies and the two wood screws stored in their CA-reinformed openings in the lower wing panels.
   c) Reconnect the aileron extension wires to the Y-cable, reattach the servo extension safety clips and neatly dress the wires inside the wing or fuselage.
   d) Carefully position the plastic wing/landing gear retainer onto the outer surface of the lower wing and guide the alignment dowels into their openings as you slide each pair of wing panels firmly against the fuselage.
   e) Reinstall the wood screws to attach the lower wing panels to the fuselage.
   f) Reattach the four wing wire clevises to the top of the center sectionôs cabane struts.

IX. PRE-FLIGHT CHECKS

1. Double-check the security of the engine-mounting box (and electric power motor box if installed) and the firewall.
2. Make certain all clevises, horns, screws and other connected parts throughout the air frame are secure.
3. Double-check the control directions of the throttle, ailerons, elevator and rudder.
4. As with all radio-controlled model airplanes, this model must pass the radio range ground check recommended by your radioôs manufacturer, or you may not safely fly.
5. Get into the habit of moving your transmitterôs throttle to minimum before turning ON your transmitter, and carefully break-in and operate your engine (or electric power system) according to the manufacturerôs instructions.
6. For your safety and for the safety of those around you, perform a final pre-flight check of all connections and clevises.

REMINDER:

An important notice to our customers ï ***THIS PRODUCT IS NOT A TOY.***

PLEASE ENJOY YOUR HOBBY AND FLY SAFELY!

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